



Moffett Community Housing Groundwater Update No. 2

Moffett Field, California

February 2002

Introduction

This is the second fact sheet presenting information about planned groundwater investigation activities at Moffett Community Housing. Moffett Community Housing consists of three housing areas near Moffett Federal Airfield and the city of Mountain View. The investigation activities will be performed at two of the three areas located on the southern portion of the airfield, just north of California Highway 101: Orion Park and Wescoat Housing.

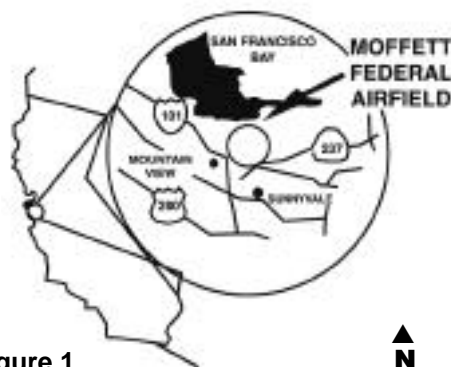


Figure 1

In the April 2001 fact sheet, the Navy reported that groundwater beneath Orion Park and Wescoat Housing had been found to contain chemical contaminants (primarily trichloroethene and 1,1,1-trichloroethane). Preliminary studies showed that the chemicals in groundwater do not pose a risk to residents. The fact sheet also presented the Navy's plans to study the extent of chemicals in groundwater under the housing areas and to collect more samples to further evaluate the possible human health risk. This month, the Navy will begin to do just that. Studies will be conducted to make sure that the chemicals do not pose a risk to people living in Moffett Community Housing.

Public Involvement — Involving and informing the public is an important part of the environmental process. The project team

Contamination is Being Treated

**The Navy, NASA
and Middlefield**

Road-Ellis Street-Whisman

**Road companies have
treatment systems
in place to clean up
groundwater at Moffett
Federal Airfield.
The most frequently
detected chemicals
are trichloroethene and
1,1,1-trichloroethane,
chemicals commonly used
in industrial cleaners and
dry cleaning products.**

is very interested in forming and keeping an open relationship with the residents living in the housing area and surrounding communities. Please feel free to contact the people listed on the back of this fact sheet for more information.

Previous Environmental Activities

Chemicals were detected in groundwater wells on National Aeronautics and Space Administration (NASA) property near Orion Park during routine groundwater monitoring in 1999. In 2000, the Navy's testing confirmed the presence of chemicals in groundwater under some areas of Orion Park. A screening-level human health risk assessment, conducted in March 2001, showed that the chemicals in groundwater do not pose a health risk to housing residents through inhalation of indoor air.

The chemicals found in groundwater are commonly used as industrial cleaners (solvents) to remove grease from metal parts and in dry cleaning products. Some of these chemicals are also used in household cleaning products. It is important to note that groundwater at Orion Park and Wescoat is not currently used for drinking, irrigation, or other domestic purposes.

The source and extent of chemical contaminants in groundwater under Orion Park is unknown. To find out this information and to evaluate whether chemicals in groundwater have spread to any other areas of Moffett Community Housing, the Navy plans to conduct more tests this month.

Southwest Division Naval Facilities Engineering Command

How Your Neighborhood Will be Affected

Moffett Community Housing residents will see field crews at different locations within Orion Park and Westcoat Housing for about three weeks. Traffic and parking may be impacted at various times. Field crews will be wearing appropriate work clothing for the specified field activities.

Based on the delineation of survey grid lines, it is possible that sampling may need to take place in your yard or that of a neighbor. All affected housing residents will be notified before fieldwork begins.

What's Next

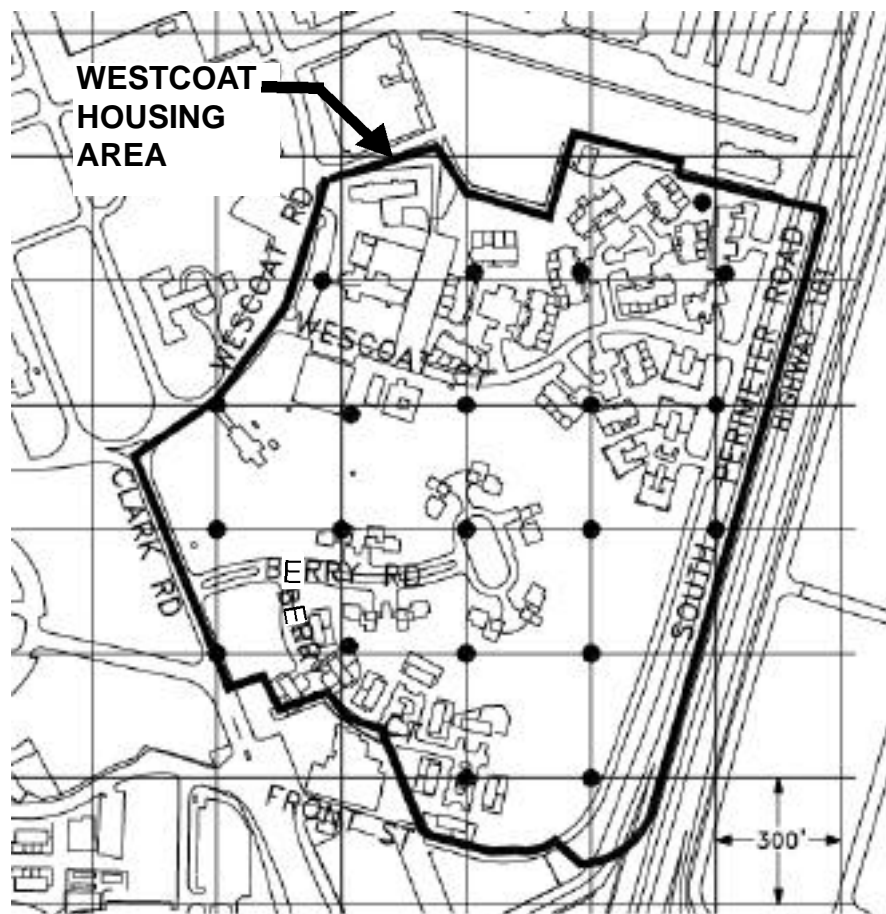
A preliminary report presenting the results of the fieldwork will be prepared in May 2002. The U.S. Environmental Protection Agency; California Regional Water Quality Control Board, San Francisco Region; NASA; the Army and members of the public will review the Navy's report and provide input. A second report is expected to be issued in January 2003. This will include the baseline human health risk assessment.

Moffett Community Housing residents will be informed about the results of the studies as soon as possible.

Figure 2



● Proposed sampling location



Project Points of Contact

The project team is interested in hearing from you. If you have questions or concerns, please feel free to contact one of the people named here.

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Upcoming Fieldwork

Environmental investigation will be conducted from mid-February to early March 2002. The objectives of the investigation are to:

- estimate the extent of the chemical contamination,
- identify contaminant sources, and
- evaluate the risk to human health.

The fieldwork will take place in several phases. Each is described below.

Survey

The first phase will include a survey of the area. A field crew will survey and mark off 300- by 300-foot areas at Orion Park and Wescoat Housing. The survey grids are shown on Figures 2 (left) and 3 (see back page).

Another crew will conduct a survey of the same areas using metal detectors to locate and mark the location of all known underground utilities near proposed sampling locations.

DPT and CPT

Scientists will collect groundwater samples at each corner of the 300- by 300-foot areas. This will take place at 41 locations within Orion Park and 21 locations within Wescoat Housing. Samples will be collected through holes drilled into the ground (borings) using Direct Push Technology, or "DPT."

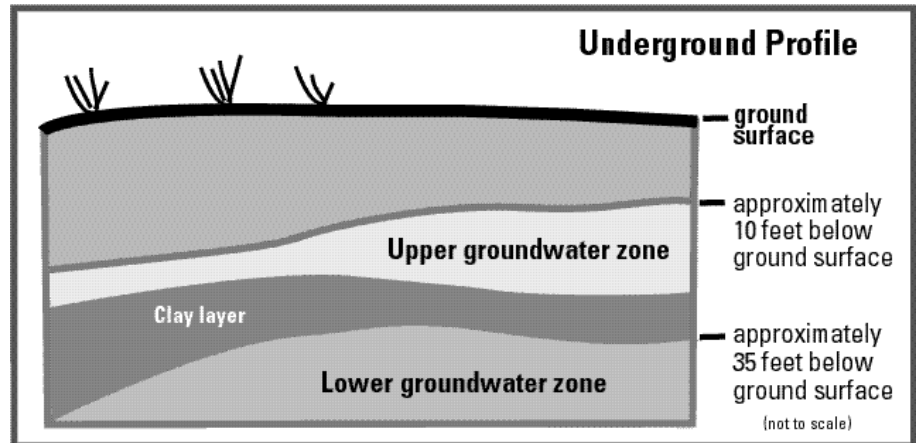
DPT consists of a hydraulic mechanism mounted on a small truck that pushes a point into the ground. The point creates the space for a one-inch diameter screen to be sent down, allowing groundwater to seep into it. A container is then lowered into the hole to collect a groundwater sample. This process will take from 1 to 2 hours at each sampling location. Once the samples have been collected, they will be analyzed in a certified laboratory.

The third phase of the fieldwork calls for finding out what makes up the underground soils through the use of Cone Penetrometer Test (CPT). CPT consists of an overall process similar to DPT, but on a slightly larger truck.

The CPT probe has a sensor that "feels" pressure and friction as it is pushed underground. Different soil types send different

information to the probe, allowing scientists to determine the make up of subsurface soils.

CPT will also be used to determine the depth of two known groundwater zones and collect groundwater samples from the lower of the two. The diagram below explains the general aquifer principle at Moffett Field.



It is important to learn about the make up of subsurface soils in order to determine the extent of chemical contamination beneath Moffett Community Housing. Gathering information about the groundwater and subsurface soils will help the Navy meet the objectives of the investigation.

Soil Gas

Soil gas is always present in soil. The fourth phase of work will include collecting soil gas samples.

The chemicals in groundwater are known to evaporate readily and could contaminate the soil gas. If present, chemicals in the soil gas could travel upward through the soil into the air above. If inhaled, gases at certain strengths could be harmful. Because the groundwater is not used for drinking and because it is deep beneath the ground, soil gas is the only way for the chemicals to reach people.

Soil gas samples will be collected at locations with the highest chemical levels based on results of the groundwater analysis. The sampling technology is similar to that of DPT and CPT. A point will be pushed down to just above the groundwater where it will open, allowing soil gas to enter. A vacuum will then be used to collect the sample. Soil gas sampling results will be used to conduct a baseline human health risk assessment.

Southwest Division Naval Facilities Engineering Command

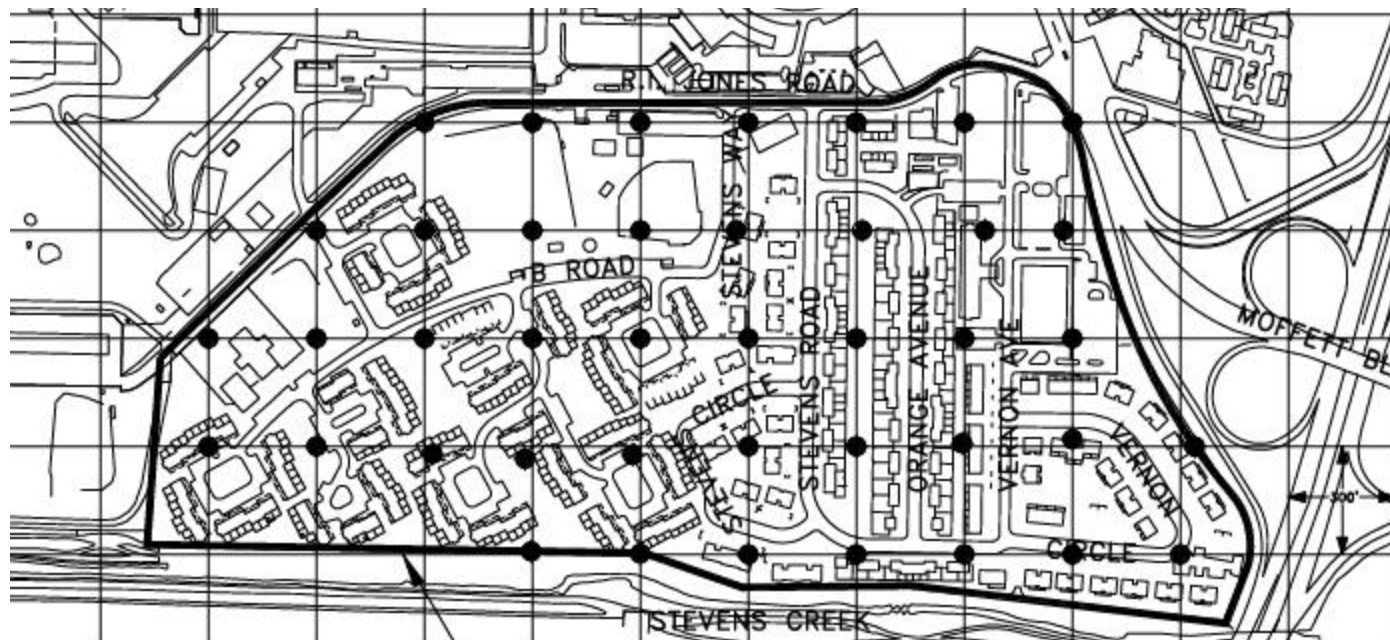


Figure 3



● Proposed
sampling
location

ORION PARK
HOUSING AREA

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